

Daily GLOWBUGS

Digest: V1 #120

via AB4EL Web Digests @ SunSITE

Purpose: building and operating vacuum tube-based QRP rigs

[AB4EL Ham Radio Homepage @ SunSITE](#)

%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%%

Subject: glowbugs v1 #120

glowbugs

Thursday, September 25 1997

Volume 01 : Number 120

Date: Wed, 24 Sep 97 16:45:10 EDT

From: jkh@lexis-nexis.com (John Heck)

Subject: Re: Regen Plans on the Web

Folks,

If you would order the "1934 Shortwave Manual" from Lindsay Publishing (and I think AES carries it) you would have all the regen plans and schematics that you could ever hope to build. This book was published by Radio magazine in 1934 (obviously) and they hoped to make it an annual but I don't believe there was another issue. It is crammed full of construction articles for receivers and transmitters, mostly of the low power variety, and has a big section on servicing most of the common, and some not so common, receivers of that era. All the National, Hallicrafters, Pilot, Silver-Marshall, Miessner, and Hammarlund sets are covered, as well as a lot of small company sets which I have sure never heard of. Included are schematics and coil winding data on many of the sets, which would allow you to reconstruct them. I found it useful to help identify a small commercial regen set I found at a swap meet last summer. After I doped out the schematic I found a set described which is exactly like the one I bought, so I assume it is actually from that manufacturer. It's a heck of a good book and should be in everybody's library.

Regards,

John Heck, KC8ETS

1009 Donson Drive

Dayton, Ohio 45429

(937)865-7036 (work)

jkh@lexis-nexis.com

>

> Ken asked about regen plans in the BA archives. I don't believe there are
> any but I found the following site that describes a Doerle Regen using 30's.

>

> <http://members.aol.com/caschwark/homebrew.htm>

>

>

> 73 de N7QFN,

> Walt

>

Date: Wed, 24 Sep 1997 17:09:04 -0400
From: "Ornitz, Barry L" <ornitz@eastman.com>
Subject: RE: Regen Audio Choke

The purpose of the audio choke is to approximate a constant current source for the detector. Has anyone tried a _true_ constant current source? I know this is mainly a vacuum tube oriented group, but true adjustable constant current sources are so trivial with modern op-amps and such. With tube voltages in the 30 volt range, mixing and matching tubes and solid-state is pretty simple.

>From: Bob Okas [SMTP:vintage@best.com]
> Not that I advocate cannabilizing old gear, but if there's an old
>LM-type frequency meter kicking around, there's a very large audio choke in
>there that would suffice for choke coupling of the audio stages. My memory
>is fuzzy, but I seem to recall its value in the 600H (yup, Henries) range.
>At 100cps, that translates to a 377K load impedance! DC resistance is on
>the order of a few hundred Ohms.
>
>[Ornitz, Barry]
>Using a gyrator-like circuit, it is possible to build a simulated inductor or
>just about any reasonable value (but with low-Q and the opposite
>frequency/impedance relationship normally seen with inductors).
>
> 73, Barry L. Ornitz WA4VZQ ornitz@tricon.net, ornitz@eastman.com

Date: Wed, 24 Sep 1997 14:47:35 -0700
From: Jim Haynes <haynes@cats.ucsc.edu>
Subject: RE: Regen Audio Choke

Well constant-current is something pentodes do pretty well too...

Date: Wed, 24 Sep 1997 14:48:27 -0700
From: Bob Rolfness <rsrolfne@atnet.net>
Subject: FS: Manuals

Greetings - The following prices are plus postage.

I'm open for any questions, etc.

TM 11-866 RADIO RECEIVERS BC-779A,-B; BC-794-A,-B; BC-1004-B,-C,-D,
and R-129/U
POWER SUPPLY UNITS RA-74-B,-C; RA-84-A,-B and RA-94-A
RADIO SETS SCR-244-A,-B; SCR-704; and AN/FRR-4
(HAMMARLUND SUPER PRO RECEIVER)

Dept. of the Army Feb 1948
with change 1, May 1949
and Supplement 7 April 1952
Excellent Condition - \$20

TM 11-957 RECTIFIER RA-87
War Department June 19, 1943
Excellent Condition - \$10

TM 11-5820-474-14 OPERATORS, ORGANIZATIONAL, DIRECT SUPPORT,
GENERAL SUPPORT MAINTENANCE MANUAL
RADIO SET AN/GRC-109
Dept. of Army 18 May 1962
with changes 4 through 6
New Condition - \$20

NAVSHIPS 91931 INSTRUCTION BOOK for RADIO SET AN/URC-7
U.S. Coast Guard 28 Nov. 1951, with change 1
28 Nov 1952
Excellent Condition - \$10

PHILCO TRAINING MANUAL for RADIO RECEIVER BC-639A
Philco Service 1950 96 pages
[Lecture, experiment, and student notes for
a course on the BC-639 & SCR563/4]
Tape and couple marks on soft cover - \$10

INSTRUCTIONAL MANUAL for CLEGG 22'er
Squires-Sanders, Inc.
Excellent Condition , marks on cover - \$10

HANDBOOK - OPERATION AND SERVICE INSTRUCTION RADIO SET AN/URC-4
Air Force 10 Aug 1950, Revised 5 Feb 1953
with SUPPLEMENT Bureau of Ships Maintenance
Parts June 1954
Very good condition - \$10

THE RADIO HANDBOOK - 16th edition 1962, by Bill Orr W6SAI
Editors and Engineers, Hard cover, 806 pages
Excellent Condition - \$20

REFERENCE DATA FOR RADIO ENGINEERS - 5TH EDITION
IT&T / HOWARD SAMS 1970 Hard cover
Excellent Condition several small tears on
dust jacket - \$20

73's Bob W7VZX

Date: Wed, 24 Sep 1997 22:21:04 +0000
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: Re: Regen Audio Transformer

At 02:42 AM 9/24/97 +0000, you wrote:
>> I have seen implementations of the pair of 30's circuit with
>>interstage transformers with 3:1 ratios up to 10:1 ratios. What do you
>>think is optimal ? ANd where does one find such transformers at a
>>reasonable price ? I've seen AES has the 3:1 for about 10 bucks. Is there
>>another (cheaper) way of coupling between the two tubes ? I am
>>collecting parts to build the Doerle two-tube set with a pair of 30s also.
>
>Mark,
>You can use an RC network in place of the interstage transformer or the large
>audio coupler choke that is sometimes used. I've done it and it works (and
>it's CHEAP) but I don't have a transformer to compare it to. I've been told,
>and I'm sure it's true, that it probably decreases the audio level from what
>you'd get when using the transformer. I'm also not sure how to compute the
>optimum values for the RC network. What I'm using in my rig are a .001mfd cap

>and 100k resistor. I think Conard may also have a point with the isolation
>issue as well. If any one else has used the RC method maybe they can
>enlighten us on this.
>
>73 Eric KA1YRV
>

I've been using the clone "Stancor A53C" that AES sells. It ain't cheap,
but it works
very well. There is not much "slack" in regenny circuits. I've found them
to be
the most cantankerous things to get working RIGHT! The circuit is simple but
they can be very picky about quality of parts etc. Also layouts that use the
chassis for "ground" can give untold trouble. The "Ground buss" or common
ground point is in order here! What works well at VHF (very short leads) can
sometime be disasterous with the regen receiver. Try and get all your
chassis ground connections close together. Stuff grounded at various points
on the chassis can cause all sorts of wierd ground loops that will drive a
regen and YOU nuts trying to get it going!

73,
E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive
Metairie, LA., 70001

Date: Wed, 24 Sep 1997 16:05:49 -0600
From: Dexter Francis <cwest@xmission.com>
Subject: Re: Regen plans at WS4S

Greetings all -

I have about 50 NOS 30's on the shelf at the moment and will cut the
price another 10% for any glowbug list member. (to \$4 each)

I'll also sell pairs for \$10 shipped. (CONUS)

Shipping on overseas orders would be \$6 to \$8.

- -df

- -----Visit our Web site at-----
http://www.xmission.com/~cwest/
or e-mail to: tubes@usa.net

Date: Wed, 24 Sep 1997 08:27:20 -0500
From: Conard Murray <cfm5723@tntech.edu>
Subject: Re: Regen plans at WS4S

The Barracks Bag rig sounds ok to me for the November choice any
others with nominations?
http://www.mnsinc.com/bry/hamscans/616_47_1.gif is the first of three pages
of info on a pretty simple transmitter from the 1947 handbook. It is a xtal
job though.
Anybody got a link to the Barracks Bag VFO rig? I couldnt find it in the

usual locations.
ZUT!
de Conard WS4S

Date: Wed, 24 Sep 1997 18:43:00 -0500 (CDT)
From: Bob Roehrig <broehrig@admin.aurora.edu>
Subject: Re: Regen Audio Transformer

On Wed, 24 Sep 1997, Bob Okas wrote:

> Pentode detectors have a high plate resistance and require higher load
> impedances than triodes. I've tried various RC coupling techniques with my
> homebrew BCB regen and have had reasonable output using a 47K load resistor
> with a 1T4 pentode and a 27V plate supply. It was almost as good as
> transformer coupling. For a coupling cap, I seem to remember using a .05 uF
> unit. The low frequency response is acceptable for AM purposes.

I think I mentioned this some time back, but it seems to me that one
trick to try is to come off the plate of the detector to a cathode
follower. That would transform the high impedance to one of perhaps
just a few hundred ohms.

I realize that this is more difficult if one is using directly heated
cathode battery type tubes, but one could still do it simply by powering
its filament off a separate battery.

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL
630-844-4898 Fax 630-844-5530

Date: Wed, 24 Sep 1997 20:01:06 -0400
From: "Ornitz, Barry L" <ornitz@eastman.com>
Subject: FW: Regen Audio Choke

I sent this reply to Jim but later thought the group might be interested
too.

73, Barry WA4VZQ ornitz@tricon.net

>-----Original Message-----

>From: Ornitz, Barry L [SMTP:ornitz@eastman.com]
>Sent: Wednesday, September 24, 1997 5:59 PM
>To: 'Jim Haynes'
>Subject: RE: Regen Audio Choke

>

>Yes, but not at such low voltages. You have to get well above the
>negative resistance region produced by low plate and screen voltages. I
>don't have any tube manuals here at work, but believe finding a pentode
>with a plate resistance over a few megohms will be difficult.

>

> 73, Barry WA4VZQ ornitz@tricon.net

>

>>From: Jim Haynes [SMTP:haynes@cats.ucsc.edu]

>>Well constant-current is something pentodes do pretty well too...

Date: Wed, 24 Sep 1997 17:35:22 -0700
From: Jim Haynes <haynes@cats.ucsc.edu>
Subject: Re: FW: Regen Audio Choke

What I had in mind was, use a pentode operating from a high plate voltage with a fixed grid bias as a plate load for the triode or whatever detector. I don't know if this is practical; it's just an idea. The pentode would be operating in the constant-current region.

Date: Wed, 24 Sep 1997 19:44:59 -0500
From: bill@skeeter.frco.com (William Hawkins)
Subject: Re: FW: Regen Audio Choke

Um, I thought the reason for using an inductor was $e = L di/dt$. That way, the audio gets to swing above the plate voltage. That extra voltage counts when you don't have much to begin with.

Regards,
Bill Hawkins

Date: Wed, 24 Sep 1997 19:18:50 -0700
From: "Paul Carreiro, N6EV" <carreiro@barepower.net>
Subject: Re: Sources for regen ideas?

At 02:09 PM 9/24/97 +0000, Jim, WB5UDE wrote:

>
>What I need, though, is some
>information, some of which I haven't come across yet.
>
>One thing I need, is circuit diagrams, parts layouts, and in
>my fondest dreams, thorough discussions of various designs
>for (in this case) regenerative receivers. If each post that's
>come across here, in which someone has said, "I'm planning to
>use [insert tube number here] in some sort of [etc]" included
>a reference to some magazine article, readily available book,
>or (best of all) a web page describing the project, I'd be
>in heaven checking out all the resources! :)
>
>I guess another thing I need, is a good explanation of
>regenerative receivers, told from the perspective of trying
>to educate the reader enough that they'd then be able to go
>on and recognize the various elements, know how they could
>be modified (as opposed to what's critical), and all that
>stuff.

In an effort to help here, I'll start uploading a series of technical sections and projects related to Regens on my Glowbugs web site from various ARRL handbooks.

Check the site in the next few days for a new Regen section.
<http://www.barepower.net/~carreiro/Glowbugs/Glowbug.htm>

Hope this helps.
73 Paul N6EV

Paul F. Carreiro - N6EV - ex-N6HCS - El Camino Village, CA
mailto:carreiro@barepower.net - http://www.barepower.net/~carreiro/
QRP - Boatanchors - Glowbugs - Mobile CW - QRQ +45WPM - ZUT!
NorCal #367 - QRP-L #236 - QRP ARCI #8885 - FISTS #1407
SCQS #1 - Southern California QRP Society
Zuni Loop Mountain Expeditionary Force (QRP Field Day)

Date: Wed, 24 Sep 1997 21:57:26 -0500
From: w5hvv@aeneas.net (Rod Fitz-Randolph)
Subject: Regen. plans

This may not be within the spirit of the Regen Month movement but it seems to me that it might be a decent approach to use some of the tubes (if they can be found) that came out for use as automobile receiving tubes and which used both 12 vdc for the filament (or maybe 6 volts for the filament and were series'd so that 12 volts could be used) AND as my failing memory has it, they used 12 volts on the plates also. Also, my failing memory seems to recall that they were all miniature tubes. Anyone remember that far back (late 40's, 50's??). Seems that would allow one to run it off of a 12 volt Astron power supply and not have to worry about the battery aspect..... or is this heresy? And that is an honest question.

I have a number 34 tube here and I'm pondering trying to "cobb" up the power supplies for it. Seems the other approach would be easier, by far. Another approach might be to use one of the good ol' 117L7/M7 tubes and just use house current.

If anyone has a good schematic for a triode regen, would you let me know? I've made triode super-regens but no regens with triodes.

IF anyone knows a good source for regenerative receivers, I'd be most interested in knowing.

And for a final parting shot: I really would like to build up a 3-tuber.... one that has a superhet front end, a stage of if amplification, a regen detector, and an audio amplifier for the speaker. A pair of 6U8s or 12AT7s and a 6AQ5 might do the trickor, again, is this flying in the face of the spirit of the Regen Month project?

Rod, N5HV
w5hvv@aeneas.net

Date: Wed, 24 Sep 1997 21:01:30 -0500 (CDT)
From: Kevin Pease <hamradio@mm1001.theporch.com>
Subject: Re: More on the new glowbug

On Wed, 24 Sep 1997, Jan Axing wrote:

> ... or September is the triode/pentode month?
>
> The glowbug is slowly improving. I changed to 6BM8/ECL82 instead since I
> found it to be easier to tame.
>

> Do anyone have similar experiences?
>

I used the circuit from a handbook or QST article for a similar tube with a broadly resonant plate circuit on the Oscillator plate. I seem to get pretty good drive and efficiency with any XTAL.

Kevin Pease
WB0JZG
Mount Juliet, TN.

Date: Wed, 24 Sep 1997 23:52:31 -0500 (CDT)
From: mjsilva@ix.netcom.com (michael silva)
Subject: Re: Regen Audio Transformer

Thought I'd toss in a few comments regarding regen detector choke/transformer loads...

My guess is that the choke/transformer load is so much a part of regen lore mainly because the when regen was in its heyday most sets ran off batteries. At < 45 volts there wasn't enough B+ to afford to drop any across a plate resistor. The actual AC load needed for a typical detector triode is only a few tens of k -- any higher load is wasted because of the shunting effect of the plate resistance (say, 10k). With a pentode the AC load might be one to three hundred k. Once higher voltages became easy to achieve choke and transformer coupling disappeared (except in power and/or P-P applications), but by then the regen was becoming a novelty so most of the circuits we have use this coupling rather than the RC coupling that was used everywhere else.

We can easily get 125-150 volts from back-to-back filament transformers today, an more from "real" plate transformers, and with care this power can be de-hummed to the point where I can't hear the difference (in an AC-riddled house, admittedly). IMHO use a choke/transformer if you want the ambience (BTW, I *like* ambience! I'm thinking of either a 6C8G/38 or 6U7G/38 lineup for the Regen Challenge, simply because I like tubes with curves...), but RC coupling with an extra stage of amplification (or even a pentode AF tube instead of a triode) will be cheaper and may also be easier to tame (regen howl is associated with choke/transformer loads).

Well, at least that's my 2 uV worth...

73,
Mike, KK6GM

Date: Wed, 24 Sep 1997 22:37:39 -0400
From: "Brian Carling" <bry@mnsinc.com>
Subject: Re: 160m conversion

Mark wrote:

> I have an old AM superhet (455 khz IF) that I am thinking about
> converting to a CW/SSB RX for 160m instead of cannabilizing for parts.
> The tube complement consists of 1A7GT, 1Q5GT, and the rest 1N5GT. My

> plan is to modify the RF amp tuned circuit, disable the AGC, and add a
> BFO (probably a Colpitts circuit), using another 1N5GT. My question is
> concerning the BFO; some of the old ARRL handbooks show injection of the
> BFO signal directly into the diode detector following the last IF amp.
> This is what I would probably try with the superhet. In the typical
> communications RX, the BFO is injected into a product detector. Has
> anyone on the list tried this kind of circuit modification before ? How
> well will it work ? Any other suggestions ?

FYI, you can usually use pretty loose coupling just by having the BFO
in the proximity. You don't want too much injection level or it will
drown out your i.f. signals.

This sounds like a great project. Usually you can pull a Medium Wave
"AM BAND" radio up to 160m just by increasing the inductances of the
R.F. and local osc. coils a bit, and re- check your range bit by bit
until you get 160m tuned in.

Yes, and a bfo would be a nice addition if you know the i.f. freq. of
the radio.

I have a couple of "AA5" G.E. Clock radios (bakelite) here that I
might try the same trick with, rather tha stripping them for parts
which I HAD intended to do.

Might make a great winter project! AND I could take parts out of the
other radio of the two , and use those to make my BFO!

Hmmmm..... do I REALLY want to do this?

73 de AF4K / G3XLQ

Bry

```
*****  
*** 73 from Radio AF4K/G3XLQ Gaithersburg, MD USA *  
** E-mail to: bry@mnsinc.com *  
*** See the interesting ham radio resources at: *  
** http://www.mnsinc.com/bry/ *  
*****
```

AM International #1024, TENTEN #13582. GRID FM19. Using a SWAN 250 on 6m,
Other rigs: Valiant, DX-60/HG-10, FT-840, TM-261, Ameco TX-62, Gonset Communicator III
HTX-202...TEN-TEN #13582, DXCC #17,763 Bicentennial WAS

Date: Wed, 24 Sep 1997 22:37:39 -0400
From: "Brian Carling" <bry@mnsinc.com>
Subject: Re: More on the new glowbug

My suggestion is to use a Pierce oscillator. They are generally not
as fussy about starting with certain crystals. Also, you could
experiment with a small variable capacitor to adjust your feedback
level.

Bry

(WHO LOVES ECL82 / 6BM8 valves!)

> ... or September is the triode/pentode month?

>

> The glowbug is slowly improving. I changed to 6BM8/ECL82 instead

> since I found it to be easier to tame.

>

> I have since increased my rock collection and discovered that this
> glowbug depends a lot on the rock activity. With an average rock,
> power out is 5W but with a really good one 9W and much better
> efficiency.
>
> Do anyone have similar experiences?
>
> 73
> Jan, SM5GNN
> The bug can be found at <http://www.algonet.se/~janax/ecl86bug.htm>
>
>
>

*** 73 from Radio AF4K/G3XLQ Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the interesting ham radio resources at: *
** <http://www.mnsinc.com/bry/> *

AM International #1024, TENTEN #13582. GRID FM19. Using a SWAN 250 on 6m,
Other rigs: Valiant, DX-60/HG-10, FT-840, TM-261, Ameco TX-62, Gonset Communicator III
HTX-202...TEN-TEN #13582, DXCC #17,763 Bicentennial WAS

Date: Thu, 25 Sep 1997 09:00:04 -0500 (EST)
From: "James C. Owen, III" <owen@piper.eeel.nist.gov>
Subject: RE: Regen Plans

In message Wed, 24 Sep 1997 12:26:52 -0700,
Walt Turansky <turansky@xroads.com> writes:

> Ken asked about regen plans in the BA archives. I don't believe there are
> any but I found the following site that describes a Doerle Regen using
> 30's.
> <http://members.aol.com/caschwark/homebrew.htm>
>
>

> 73 de N7QFN,
> Walt
>

Well here's an offer some can't refuse. I have a Doerle 5000 Short-Wave receiver that goes from 200 meters to 15 meters. My dad bought this in 1935 from The Radio Trading Company in New York. It works great and is stable enough for SSB. Requires tuning touch about every 5 minutes on SSB after warm-up. Now here's the deal. If anyone wants a copy of the instructions and schematic to build a copy I will be glad to copy and mail for cost. I would think that about a \$1.00 would cover it as there are only 6 pages single sided. This Regen is a 5 tube with a 6D6 RF Amp, 6F7 Regen-Detector and 1st AF Amp, 37 2nd AF Amp, 41 AF Power Output and 80 Rectifier. The only thing not in the instruction is the number of turns on each plug-in coil but I can count the number on each of mine and include. There are also nice line drawings of the chassis layout but of course dimensions are not given. If anyone is interested let me know. 73 Jim K4CGY

Date: Thu, 25 Sep 1997 08:59:50 -0500
From: Conard Murray <cfm5723@tntech.edu>
Subject: Spirit of things and heiracy

. A pair of 6U8s or 12AT7s and a 6AQ5 might do the trick
>.....or, again, is this flying in the face of the spirit of the
>Regen Month project?
>
Hi Rod and the group,
You must have us confused with another list :^}
You would really have to push the limits to commit a heiracy on this list
... not that I am inviting such, but I think we are a pretty open-minded
group. Certainly, using more modern valves for a project isn't a problem.
It might even be called good practice by some who would point out there are a
lot more 6U8's and 12AX7's out there than 19's and 30's.
I didn't even balk at the hybrid SS VFO to a tube PA rig. I am happy just to
see people building stuff, especially involving tube stuff. The idea behind
regen month is to get us all doing something similar with different
approaches to different problems. We can then discuss the differences and
learn. Rod, I think you have some good ideas with the 12V tubes and I hope
to follow them up and tell us how it works for you. Heck, if someone wants to
make a regen with BJT's I would welcome their comments too!
Thanks to all for taking off with this idea. Lets get some receivers built!
73 and ZUT!
Conard, WS4S
Glowbugs listowner

Date: Thu, 25 Sep 1997 08:35:39 -0700 (MST)
From: Jeff Duntemann <jeffd@coriolis.com>
Subject: Re: Regen. plans

At 09:57 PM 9/24/97 -0500, Rod Fitz-Randolph wrote:
>This may not be within the spirit of the Regen Month movement
>but it seems to me that it might be a decent approach to use
>some of the tubes (if they can be found) that came out for use
>as automobile receiving tubes and which used both 12 vdc for
>the filament (or maybe 6 volts for the filament and were series'd
>so that 12 volts could be used) AND as my failing memory has it,
>they used 12 volts on the plates also. Also, my failing memory
>seems to recall that they were all miniature tubes. Anyone
>remember that far back (late 40's, 50's??). Seems that would
>allow one to run it off of a 12 volt Astron power supply and not
>have to worry about the battery aspect..... or is this heresy?
>And that is an honest question..

I have a strong interest in these tubes, and there was some discussion of
them on the list here about six weeks ago, including a list of the tubes
(there are about thirty of them) and citations of circuits in the
literature. One thing I don't have for the 12V "space charge" tubes is a
regen circuit, tho it's on my list to figure one out, probably with the
12U7 dual triode.

I think Bryan Carling was going to summarize the 12V tube data on his
excellent page somewhere--or maybe that was somewhere else. Certainly you
can find that traffic in the Glowbugs archives.

- --73--

- --Jeff Duntemann KG7JF (Perhaps soon to be K7JPD...)
Scottsdale, Arizona

Date: Thu, 25 Sep 97 10:42:25 MDT
From: "Mark Dittmar" <Mark_Dittmar@maxtor.com>
Subject: 4-pin socket source

Anybody know of an inexpensive source of 4-pin tube sockets (like for type 30 or type 26 tubes). AES wants about \$3.75 a piece for them. I'll check at the hamfest this weekend, but these rarely show up.

THANKS !

Mark Dittmar
ABOCW

Date: Thu, 25 Sep 1997 14:44:51 -0400 (EDT)
From: leeboo@ct.net (Leon Wiltsey)
Subject: re regen help

HI gang

Seems like everybody is getting the regen bug.

I have just completed a 3 tube regen for 80 and 40 it will also tune wwv on 10 which comes in fb here in central fl.

from Fort Collins Col. it uses a,6aq5 det both sides of a 6sn7 as audio amps and a 6aq5 for the audio out.

Running abt 100v on det as a pentode, and it goes into osc very smooth with abt 15 on the screen. No ripple at all on the b+ which is abt 250v. Has good sens but for the life of me I can not get ride of the 120 cy hum. I know it is coming from, the det as if I remove the coupling cap from the plate it goes away. It has good sens and is quieter Than my hw 16 as far as qrm and qrn is concerned. Am working now on a old cir from the 1959 hndbook called a selectojet. It is a selective audio amp using a pair of 12ax7 tubes as a highly peaked audio amp, it will also function as a test osc if you turn the gain up to high. I am hoping this will reduce the hum. Another problem is I am using hi fi phones and they out out hum very efficiently Even went so far as to rewire the cir and put the det tube on the other side of the chassis to seperate it from the power trans, but that did not help. Any help would be appreciated.

leeboo@ct.net

THANK THE LORD FOR ALL YOU HAVE

68 yr old semidisabled senior
(stroke got my balance & hand to eye coordination)

LEON B WILTSEY (Lee) tel 941 471 3739
4600 Lake Haven BLVD.
Sebring, Fl. 33872 (SEBRING)

KF4 RCL TECK+

Date: Thu, 25 Sep 1997 17:31:53 +0000
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: RE: Regennys (again)

Hello again gang,

There is always the question: Should I use a "throttle" capacitor or a "pot" as a regeneration control?

Either with triode detectors...the plate voltage should be from 15-45 volts or so. Whatever gives best sensitivity. The amount of "tickler" turns on the coil will have a big bearing on this. You will have to experiment with the grid leak value (1-5 megohms) and the tickler coil to achieve SMOOOTH regeneration. The detector should NOT "plop" suddenly into oscillation! It should go into it gradually.

With the "pot" regeneration control, you will have to piddle with the value of the "bypass" or "feedback" capacitor that goes to ground from the B+ end of the "tickler" coil. It is usually around 250 pf or so, but the value will vary widely, depending on the number of turns in the tickler coil.

With pentode/tetrode detectors, all the literature says keep the screen voltage around 30 volts or so. Ticklers to be adjusted accordingly for smoooooth regeneration. I haven't had a whole lot of success with pentode detectors! Too many picky things to piddle with. I LIKE TRIODES! For everything, really!

I prefer the "two winding" coils for regennys as whatever "bandspreading" arrangement you devise can be left alone, whilst you experiment with the 'tickler' winding. The tapped coil "hartley" arrangement is OK, but you must restrict it to indirectly heated cathodes (no good on filament types!) and every time you play with the tap, it upsets the tuning range etc! My "homebrew" coil forms are usually old octal tube bases and plastic pill bottles or plastic drain pipe (waste line on washbasin/kitchen sink). This "tested" in a microwave oven to see if they heat up, which denotes a poor coil form material. The octal base having enough pins for any hookup! I have also thought of using Amidon toroid cores inside octal bases, but haven't tried it yet!

Warm up the soldering irons and have at it!

73,

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive

Metairie, LA., 70001

Date: Thu, 25 Sep 1997 13:33:35 -0500

From: Conard Murray <cfm5723@tntech.edu>

Subject: I can't spell

I must apologize for the awful spelling in the last posting. Normal excuses apply. Dunno why the spellchecker didn't run before the silly thing sent.

CUL,
Conard

Date: Thu, 25 Sep 1997 13:01:49 -0700

From: "Frank A. West" <ke6vhm@earthlink.net>

Subject: Re: Spirit of things and heiracy

OK do I feel dumb. What's a BJT. Never heard that before.

TTFN 73 Frank KE6VHM

Grid Square DM13
CW Forever

> Heck, if someone wants to make a regen with BJT's.
> 73 and ZUT!
> Conard, WS4S
> Glowbugs listowner
>
>
>
>

Date: Thu, 25 Sep 1997 12:58:44 -0400
From: "Forrest B. Snyder, Jr." <fbsnyder@mitre.org>
Subject: RE: 160m conversion

Check out the schematic for the much loved Knight Ocean Hopper -- You'll find it uses three of the same tubes as the AA5 Superhet (and substitutes a 220K resi. -- Maybe you can use your superhet as the foundation for a 160 M regen.

Forrest Snyder
N4UTY

"Sure, it's 1936 technology. But it's good 1936 technology."

- -----Original Message-----

From: Brian Carling [SMTP:bry@mnsinc.com]
Sent: Wednesday, September 24, 1997 10:38 PM
To: glowbugs@www.atl.org
Subject: Re: 160m conversion

Mark wrote:

> I have an old AM superhet (455 khz IF) that I am thinking about=20
> converting to a CW/SSB RX for 160m instead of cannabilizing for parts. =
=20
> The tube complement consists of 1A7GT, 1Q5GT, and the rest 1N5GT. =
My=20
> plan is to modify the RF amp tuned circuit, disable the AGC, and add =
a=20
> BFO (probably a Colpitts circuit), using another 1N5GT. My =
question is=20
> concerning the BFO; some of the old ARRL handbooks show injection of =
the=20
> BFO signal directly into the diode detector following the last IF amp. =

> This is what I would probably try with the superhet. In the typical=20
> communications RX, the BFO is injected into a product detector. Has=20
> anyone on the list tried this kind of circuit modification before ? =
How=20
> well will it work ? Any other suggestions ?=20

FYI, you can usually use pretty loose coupling just by having the BFO=20
in the proximity. You don't want too much injection level or it will=20
drown out your i.f. signals.

This sounds like a great project. Usually you can pull a Medium Wave=20
"AM BAND" radio up to 160m just by increasing the inductances of the=20
R.F. and local osc. coils a bit, and re- check your range bit by bit=20

until you get 160m tuned in.

Yes, and a bfo would be a nice addition if you know the i.f. freq. of=20 the radio.

I have a couple of "AA5" G.E. Clock radios (bakelite) here that I=20 might try the same trick with, rather tha stripping them for parts=20 which I HAD intended to do.

Might make a great winter project! AND I could take parts out of the=20 other radio of the two , and use those to make my BFO!

Hmmmm..... do I REALLY want to do this?

73 de AF4K / G3XLQ

Bry

*** 73 from Radio AF4K/G3XLQ Gaithersburg, MD USA *

** E-mail to: bry@mnsinc.com *

*** See the interesting ham radio resources at: *

** <http://www.mnsinc.com/bry/> *

AM International #1024, TENTEN #13582. GRID FM19. Using a SWAN 250 on = 6m,

Other rigs: Valiant, DX-60/HG-10, FT-840, TM-261, Ameco TX-62, Gonset = Communicator III

HTX-202...TEN-TEN #13582, DXCC #17,763 Bicentennial WAS

Date: Thu, 25 Sep 1997 14:21:10 -0600 (MDT)

From: Art Winterbauer <art@comet.ucar.edu>

Subject: Re: Spirit of things and heiracy

I think they're bipolar junction transistors? Can't recall much more than that! --Art WA5OES

On Thu, 25 Sep 1997, Frank A. West wrote:

>OK do I feel dumb. What's a BJT. Never heard that before.

>

>TTFN 73 Frank KE6VHM

> Grid Square DM13

> CW Forever

>

>> Heck, if somone wnats to make a regen with BJT's.

>> 73 and ZUT!

>> Conard, WS4S

>> Glowbugs listowner

>>

>>

>>

>>

>

Date: Thu, 25 Sep 1997 14:25:45 -0700 (PDT)

From: Bob Okas <vintage@best.com>
Subject: Re: Spirit of things and heiracy

BJT is an old term that pops up every now and then. It stands for Bipolar Junction Transistor. You know, the 2N2222A type things. Distinguishes it from FETs and UJts (Uni Junction Transistors).

Bob - W3CD

On Thu, 25 Sep 1997, Frank A. West wrote:

> OK do I feel dumb. What's a BJT. Never heard that before.
>
>

End of glowbugs V1 #120

%%%% GlowBugs %%%% GlowBugs %%%% GlowBugs %%%% GlowBugs %%%%

[AB4EL Ham Radio Homepage @ SunSITE](#)

Created by **Steve Modena, AB4EL**
Comments and suggestions to **modena@SunSITE.unc.edu**
